

REMARKS

By way of review, the invention, as claimed in claim 11, is directed to a thermal recording sheet in which a square and transparent film is provided with a thermal recording layer containing leuco dye and a coloring agent and a protective layer mainly containing a water-based resin on one surface thereof, and having four corner portions, including at least one marked corner portion, at the four corners thereof. The corner portions respectively have an edge with a curvature radius of no less than 5 mm. The marked corner portion has substantially a maximum curvature radius or a minimum curvature radius.

The invention, as claimed in claim 17, is directed to a thermal recording sheet pack having a bundle of thermal recording sheets consisting of a stack of thermal recording sheets. Each sheet comprises a square and transparent film provided with a thermal recording layer containing leuco dye and a coloring agent and a protective layer mainly containing a water-based resin on one surface thereof, and having four corner portions, including at least one marked corner portion, at the four corners thereof. The corner portions respectively have an edge with a curvature radius of no less than 5 mm. The marked corner portion has substantially a maximum curvature radius or a minimum curvature radius.

A protective cover sheet covers substantially a whole of a lower surface of said bundle of thermal recording sheets. The protective cover sheet includes a protective cover main body having approximately the same form as each of said thermal recording sheets of said bundle of thermal recording sheets and contacting with the lower surface of said bundle of thermal recording sheets. A rear contact portion is provided in a standing position at one edge of said protective cover main body so as to contact with a rear end face of said bundle of thermal recording sheets in a sheet

feed direction. A pair of side contact portions is provided in the standing position at a pair of edges perpendicular to said one edge of said protective cover main body so as to contact with both sides of said bundle of thermal recording sheets.

The thermal recording sheet pack further includes a thin membrane band for holding said bundle of thermal recording sheets between said side contact portions of said protective cover sheet. The thin membrane band crosses over between said pair of side contact portions when said bundle of thermal recording sheets are placed on said protective cover main body, and contacts with at least outer side surfaces of said pair of side contact portions, and is pressed against a portion of an upper surface of said bundle of thermal recording sheets so as to hold said bundle. An annular thin membrane holds the bundle of thermal recording sheets in the sheet feed direction, and is placed so as to surround the outside of said protective cover sheet and said bundle of thermal recording sheets in said sheet feed direction when said bundle of thermal recording sheets is placed on said protective cover main body, and contacts with at least the outer sides of said rear contact portion, and is pressed against a front end face of said bundle of thermal recording sheets located oppositely to said rear contact portion, as well as at least a portion on the upper surface of said bundle of thermal recording sheets.

Turning now to the cited art, Reference No. 1 (U.S. Patent No. 6,878,670 to Seki, et al.) discloses only a heat-sensitive recording material employing a color forming reaction between a leuco dye and a developer. Reference No. 1 discloses not a configuration of a sheet provided with corners, but a layer structure of the heat-sensitive recording material.

Reference No. 2 (Japanese Patent No. 02-084382 to Kishimi) discloses an apparatus for thermally recording an image, characters, or the like on a heat sensitive material with a thermal

head, such that an area of the heat sensitive material other than the area in which the image or the like is thermally recorded in response to an input signal is thermally recorded at a predetermined density level. The heat sensitive material used in this apparatus has four corner portions each of which has the same configuration as shown in Fig. 1, Fig. 6 and Fig. 7. However, it does not have at least one marked corner portion with a curvature radius which is different from the other corner portions.

Reference No. 3 (Japanese Patent No. JP2002-059653 to Yoshida) discloses a card constituted of a card base having a reversible thermal recording layer capable of presenting visual information rewritably, wherein the reversible thermal recording layer is formed of a rewritable leuco dye layer, while the card base is formed of a base material having transparency. The card has four corner portions each of which has the same configuration as shown in Fig. 1 and Fig. 4 - Fig. 7. However, it does not have at least one marked corner portion with a curvature radius which is different from the other corner portions.

Reference No. 4 (U.S. Patent No. 6,972,781 to Tytgat) discloses a method of generating a hard copy of an image on a substantially rectangular heat sensitive recording material having rounded corners. Reference No. 4 does not make reference to the number of rounded corners, the distribution of the rounded corners, and the curvature radius of the rounded corners.

Reference No. 5 (U.S. Patent No. 6,106,910 to Tan, et al.) discloses only a print media with a near infrared sense mark. The near infrared sense mark is used for triggering an automated operation such as printing, advancing, cutting and/or dispensing a print medium. Reference No. 5 fails to disclose a print media with four corner portions and makes no reference to the curvature radius of corner portions.

The inventions claimed in claims 11 and 17 are clearly distinguished from the inventions disclosed in Reference No. 1 - No. 5.

According to the inventions disclosed in References No. 2 and No. 3, it is impossible to definitely differentiate between front and rear faces of the sheet before printing, since each of the four rounded corner portions has the same configuration so that the sheet before printing has the same appearance at its front and rear faces. Thus, References No. 2 and No. 3 fail to disclose the technical idea of differentiating between front and rear faces of the sheet by means of the configuration of the corner portions.

Reference No. 4 discloses rounded corner portions, but it makes no reference to the technical idea of differentiating between front and rear faces of the sheet by means of those rounded corner portions.

Neither Reference No. 1 nor No. 5 makes reference to a sheet with the corner portions.

Each of Reference No. 1 to No. 5 fails to disclose the technical idea of utilizing the corner portions as a means for differentiation between front and rear faces of the sheet. Therefore, the inventions disclosed in Reference No. 1 - No. 5 are clearly distinguished from the inventions claimed in claims 11 and 17. Reference No. 1 - No. 5 fail to disclose or suggest the structural features defined in claims 11 and 17.

In view of the foregoing points, the person skilled in the art cannot arrive at the inventions defined in claims 11 and 17, by combining the prior art disclosed in Reference No. 1 - No. 5. Hence, the present inventions defined in claims 11 and 17 are considered to be based on an inventive step. For this reason, the claims 11 and 17 are deemed to be allowable. Now, claims 12-

16 which are dependent claims of claim 11, and claims 18-20 which are dependent claims of claim 17 are also allowable for the reasons that claims 11 and 17 are allowable.

Wherefore, a favorable action is earnestly solicited.

Respectfully submitted,

KIRSCHSTEIN, OTTINGER, ISRAEL & SCHIFFMILLER, P.C.

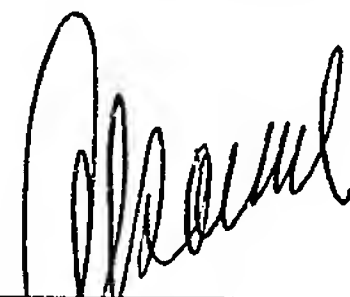
Attorneys for Applicant(s)

425 Fifth Avenue

New York, New York 10016-2223

Tel: (212) 697-3750

Fax: (212) 949-1690



Alan Israel

Reg. No. 27,564

